

Appl. No. 10/013,078
Amdt. dated February 1, 2006
Reply to Office Action of October 12, 2005

Remarks

The present amendment responds to the final Office Action of October 12, 2005 and the Advisory Action mailed January 13, 2006. It accompanies an RCE. A petition for a one-month extension of time and authorization to charge Deposit Account No. 50-1058 for the fee for this extension accompany this amendment. The final Official Action rejected claims 5 and 6 under 35 U.S.C. §102(b) as being anticipated by Humble et al. U.S. Patent No. 4,792,018 (Humble). This sole ground of rejection is addressed below following a brief discussion of the present invention to provide context.

Claims 1-4 have been previously cancelled without prejudice. Claims 5 and 6 have been amended to be more clear and distinct. New claims 7-22 have been newly added. Claims 5-22 are presently pending.

The Present Invention

According to one aspect, the present invention comprises a self checkout terminal including an incoming goods path for receiving goods and one or more goods collection zones for collecting goods passing into the goods collection zone from the incoming goods path. The self checkout terminal is preferably equipped with one or more retractable barriers at least partially surrounding the goods collection zone to restrict access to the goods. The goods collection zone is equipped with a scale for determining the weight of goods assembled therein. A processor is preferably incorporated into the self checkout terminal and is operative to receive identification information from goods passing through the incoming goods path and to obtain expected weight information for goods passing through the incoming goods path. The processor

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also preferably receives weight information for the goods collected at the goods collection zone. The processor compares expected weight information for goods passing through the incoming goods path into a goods collection zone with actual weight information for goods assembled in that goods collection zone. The processor detects a discrepancy between the actual weight information and the expected weight information and directs appropriate security measures if the discrepancy exceeds a predetermined amount. Security measures may include, for example, sounding an alarm, inhibiting conclusion of a transaction and continuing to restrict access to the goods collection zone.

The Art Rejection

The art rejection hinges on the application of Humble standing alone. As addressed in greater detail below, the cited reference does not support the Official Action's reading of it and the rejections based thereupon should be reconsidered and withdrawn. Further, the Applicant does not acquiesce in the analysis of the cited reference made by the Official Action and respectfully traverses the Official Action's analysis underlying its rejections.

The Official Action rejected claims 5 and 6 under 35 U.S.C. 102(b) as anticipated by Humble. Humble addresses an arrangement of counter systems having a laser UPC reader 10, an infeed or entry conveyor 12, a tunnel or secured zone 15, an outfeed or exit conveyor 13, and a bagging area 14 with a control gate 17 between two self-checkout systems. Humble, col. 4, lines 25-30 and Figs. 1-2.

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A customer utilizing the Humble system scans items and places the items on the entry conveyor 12. The entry conveyor 12 transports the items through the secure zone 15 out of reach of the customer to the bagging area 14. Once the customer has scanned and paid for all the items, the customer passes through the control gate 17 to the bagging area 14. Humble, col. 4, line 65 – col. 5, line 18. To preclude a customer from substituting a different item than the one scanned, Humble's counter system also includes an article weight scale 43 beneath the entry conveyor 12 which provides weights of items presently on the entry conveyor to be compared to stored values in order to ensure that the weight corresponding to a read UPC matches the item on entry conveyor 12. If the stored and measured values do not satisfactorily match, entry conveyor 12 is reversed to reject itemization of the present items on the entry conveyor 12. Humble, col. 5, line 59 – col. 6, line 6. Typically, a customer places items in a sequential manner onto an entry conveyor thus limiting the number of items on the entry conveyor 12 at any one time. Humble's system weight comparison is limited to the number of items presently on the entry conveyor 12 and does not provide a weight of all items being purchased.

In contrast, one aspect of the present invention collects and weighs all items to be purchased by a customer. This weighing occurs when all goods to be purchased have reached a collection zone. The goods collection zone is an area where all the items to be purchased are collected prior to bagging. The total weight of all the items at the goods collection zone is compared to the total weight calculated for all the items scanned by a product scanner. By way of example, a customer may utilize the product scanner to scan a number of items which proceed to either goods collection zone 24 or 30. The present invention calculates, by referring to a

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record of product weights, an expected total weight for all the items scanned. At the goods collection zone, where all the scanned items collect awaiting subsequent bagging, all the items are weighed by a weigh scale under the goods collection zone to determine the total weight of the number of items being purchased. The present invention compares the total weight of the number of items with the expected total weight. If a customer attempts to place an additional or different item in the collection zone without properly scanning it, the present invention recognizes a discrepancy and controls one or more barriers to restrict access to the goods collection zone. Claim 5 reads as follows:

5. A method of detecting misappropriation of goods in a self-checkout lane in a store, the self-checkout lane having an incoming goods path and a goods collection zone, and goods being passed, in service, from the incoming goods path into the goods collection zone; the incoming goods path including a product scanner electrically coupled to a processor, and the goods collection zone including a weighing scale electrically coupled to the processor, the method being performed by a processor and comprising the steps:

(a) receiving input from the product scanner identifying goods introduced by a customer into the incoming goods path;

(b) controlling one or more barriers at least partially surrounding the goods collection zone so as to restrict access to goods collecting in the goods collection zone;

(c) calculating, by referring to a record of product weights, a total weight value representative of the total weight of the goods introduced into the incoming goods path;

(d) weighing the goods introduced into the incoming goods path, once collected at the goods collection zone, by the weighing scale;

(e) receiving input from the weighing scale specifying the total weight of the goods collected at the goods collection zone; and

(f) comparing the said total weight value of the goods introduced into the incoming goods path with the said total weight of the goods collected at the goods collection zone and calculating a discrepancy between the said weights; and

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(g) if the calculated discrepancy exceeds a predetermined value, inhibiting conclusion of a transaction for purchase of goods introduced into the incoming goods path and collected in the goods collection zone and continuing to control the one or more barriers at least partially surrounding the goods collection zone so as to restrict access until the discrepancy is resolved and the transaction is concluded. (emphasis added)

Humble does not disclose and does not make obvious a “goods collection zone including a weighing scale electrically coupled to the processor” as claimed. Humble discloses an entry conveyor with a weight sensor which passes items through a tunnel and to a bagging area. While items are under Humble’s tunnel, customers do not have access to those items and thus cannot bag items from Humble’s tunnel. Although Humble’s bagging area does collect items to be purchased for bagging and might be considered a collection area, Humble does not disclose a weight scale underneath the bagging area to calculate the total weight of the items to be purchased as claimed. Humble merely weighs items presently on the entry conveyor and continually compares the expected weight of those items with their actual weight.

Humble does not disclose and does not make obvious a “calculating, by referring to a record of product weights, a total weight value representative of the total weight of the goods introduced into the incoming goods path; (d) weighing the goods introduced into the incoming goods path, once collected at the goods collection zone, by the weighing scale; (e) receiving input from the weighing scale specifying the total weight of the goods collected at the goods collection zone; and (f) comparing the said total weight value of the goods introduced into the incoming goods path with the said total weight of the goods collected at the goods collection zone and calculating a discrepancy between the said weights,” as claimed in claim 5. Humble’s approach is limited to weighing the

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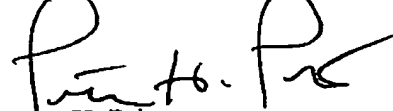
number of items presently placed on its entry conveyor before those items proceed to Humble's bagging area.

Furthermore, Humble does not disclose and does not make obvious the manner in which a weight discrepancy is addressed. In particular, Humble does not disclose and does not make obvious "continuing to control the one or more barriers at least partially surrounding the goods collection zone so as to restrict access until the discrepancy is resolved and the transaction is concluded," as claimed in claim 5. Humble's system merely includes a control gate between individual counter systems. However, Humble's disclosure is silent with respect to how this control gate operates, whether this gate is controlled by a processor, and under what conditions, if any, this control gate allows a customer to proceed to Humble's bagging area.

Conclusion

All of the presently pending claims appearing to define over the applied reference, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted



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